IN THE SPECIFICATION

Please cancel paragraphs 009, 037, 041, 045, 048, 049, 052, 053 and 055 of the specification of the subject U.S. patent application, as filed. Please substitute replacement paragraphs 009, 037, 041, 045, 048, 049, 052, 053 and 055, as follows.

[009] Vibrating separatory machines are frequently used in applications in which a relatively abrasive material is separated from a suspension fluid, such as water. The slurry of fine abrasive particles and the suspension fluid finds its way into all of the components of the screen assembly, including into the spaces that exist between the screen panel connection mechanisms and the holes or apertures in the screen stringer rails. Over the course of time, the slurry abradesabraids the holes and causes them to enlarge. This abradingabraiding action is enhanced by the vibration to which the separtory machine is continually subjected.

[037] Referring initially to Fig. 1, there may be seen generally at 20 a preferred embodiment of a screen panel retainer system in accordance with the present invention. Screen panel retainer system generally at 20 includes elongated retainer bars, generally at 22, which are adapted to receive screen edge strips 24 and to also receive end dams 26. These retainer bars 22, edge strips 24 and end dams 26 form a retainer system intended to removably attach screen panels, such as screen panel 28 to a vibrating separatory machine, that is depicted somewhat schematically at 30 in Fig. 1. It will be understood that the vibrating separatory machine 30 depicted in Fig. 1 is representative of various machines of this type which are provided by a variety of

manufacturers and which are used in numerous industrial applications to classify and separate particulate matter, typically in the form of a slurry of particles and water. Such vibrating separatory machines 30 typically include a pair of side panels 32, only one of which is depicted in Fig. 1. A[[, a]] plurality of cross tubes 34 extend between a pair of longitudinally extending side panel channel iron frame member 36. The cross tubes 34 are generally transverse to a flow direction, indicated by arrow A in Fig. 1, of material along the screen panel bed 38 of the separatory machine 30. The cross tubes 34 are spaced longitudinally from each other, as seen in Fig. 1.

[041] Retainer bar 22 is generally rectangular in cross-section and has a length sufficient to receive at least one edge of a screen panel 28, as will be discussed subsequently. The bar 22~~28~~ has an upper surface 60, a lower surface 62, as seen more clearly in Figs. 6 and 7, and sides 64 and 66. A plurality of chamfers 68 are spaced along the length of each retainer bar and are spaced along the upper face 60 of each retainer bar. These chamfers 68 overlie bores 70 which are spaced longitudinally along the spine 50. These bores 70, as depicted in Figs. 6 and 7, are not threaded. They are spaced to coincide with the hole spacing of the holes 44 on the upper surface of the screen stringer rails 40.

[045] In use, when the retainer bars 22 are initially placed on the screen stringer rails 40, the plugs 72 will be received in the rail holes 44 so that the body of the plug, up to the lip or flange 92 will be within the hollow interior of the rail 40. This may be seen most clearly in Fig. 6. In this position, the retainer bar 22 is now connected to the

stringer rail 40 so that it will not be dislodged by casual movement of the stringer rails 40. Once the retainer bars 22 have been so placed, a threaded shank 94 of an expansion bolt, generally at 96, is inserted through the spine bore 70, down the plug central passage 78 and into engagement with the expansion nut 80. An enlarged~~elongated~~ head 98 of the expansion bolt abuts an upper surface of the metal spine 50. Since the spine bore 70 is not threaded, rotation of the expansion bolt 96 such as by engagement of a suitable tool with the bolt head 98, which may be provided with a hex socket, which is not specifically shown, will result in movement of the expansion nut 80 axially along the bolt shank 94. Movement of the expansion nut 80 toward the bolt head 98 will result in an axial shorting of the plug 72 and a coincidental radial widening, as depicted in Fig. 7. It will be understood that the radial widening, or the increase in the diameter of the plug 72, in response to a decrease in the distance between the bolt head 98 and the expansion nut 72 will preclude removal of the now radially enlarged plug 72 from the interior of the screen stringer rail. The diameter of the plug 72 has been increased sufficiently so that it will now not pass through the rail hole 44.

[048] Each retainer bar 22, as may be seen most clearly in Figs. 4 and 5, has a plurality of upwardly extending ears, generally at 100, which ears 100 are molded integrally with the rest of the resilient retainer bar. The plurality of these ears 100 are symmetrical about a transverse center line of the retainer bar 22 so that each retainer bar 22 can be installed without respect~~response~~ to its longitudinal orientation. Each ear 100 is somewhat V-shaped in side view; i.e. in a view transverse to the flow direction 14

of material along the screen panels. Each ear includes an ear base 102 and a pair of upwardly extending lugs 104. The upper, free end of each ear lug 104 terminates in[[I]] an ear hook 106. These ear hooks 106 are each essentially tongues that will fit into cooperating shaped grooves in the screen edge strips 24, as will be discussed subsequently. Each ear hook 106 is somewhat rectangular in side elevation view and has a hook end 108. The shape of each ear 100 and its fabrication of a resilient material, such as polyurethane, gives each ear 100 a certain amount of flexure. This accomplishes the snap-fit of the ears into the screen edge strips 24 during mounting of the screen panels 28 onto the screen stringer rails 40. The longitudinal ends of each retainer bar 22 are provided with half-ears 110. These half-ears 110 are similar in structure and function to the ears 100 but only include one lug 104 and one hook 106. In some instances, the two lugs 104 of an ear 100 are spaced apart a sufficient distance to lengthen the ear base 102 so that an expansion bolt 96 can pass through the ear base 102 and into an underlying securement plug 72. As may be seen most clearly in Fig. 4, the ears 100 are concentrated at the longitudinal ends of each retainer bar 22. They are also spaced evenly along the length of each bar 22 intermediate its ends.

[049] Referring now primarily to Fig. 3, there may be seen~~been~~ a screen panel assembly, generally at 120, which screen panel assembly is representative of a plurality of screen panels that will be secured to the base of the vibrating separatory machine 30 using the screen panel retainer system 20 of the present invention. Each screen panel assembly 120 includes a screen panel 28 and a pair of screen edge strips 24. The

screen panel itself is generally conventional and does not form a part of the subject invention. As is known to those familiar with vibrating separatory machines, each screen panel includes a plurality of profile wires 122 which extend in the flow direction A and which are secured, typically by welding, to underlying, transverse tie rods 124. These tie rods 124 are typically circular in cross-section, are spaced equally along the length of each screen panel 28 and have tie rod end 126 that extend laterally beyond the outermost ones of the profile wires 122.

[052] Each screen edge strip key 140 or 142 is dimensioned to be securable in a cooperating shaped cut-out or keyway 150 on the retainer bar 22 to which the screen edge strip 24~~22~~ will be attached. As may be seen in Fig. 5, each keyway 150 has an inclined face 152 whose slope is complementary to the slope of the outer face 146 of the key 140 or 142. These keys 140 and 142, and their cooperating keyways 150 insures that the screen panel screen edge strip 24~~22~~ will be properly aligned with the retainer bars 22.

[053] The outer face 132 of each screen edge strip 24~~132~~ is generally planar and is provided with a plurality of retainer ear receiving pockets 160. Each pocket 160, except for two end pockets 168, is generally T-shaped in plan view. Its depth is less than the width of each edge strip 24. Each edge strip 24 pocket has a depth that is approximately half of the width of a corresponding retainer bar ear 100. The pockets 160 each have a pair of grooves 164 that extend longitudinally from a central passage 166. The pocket grooves 164 are dimensioned to receive the ear hooks 106. This

assembled configuration can be seen in Fig. 2 which shows several screen panel assemblies 120 secured to retainer bars 22 with several screen panel assemblies 120 yet to be installed. Various reference numerals and their lead lines have been left off Fig. 2 for ease of illustration. As seen in Fig. 2, a pair of screen panel assemblies 120 are secured to each retainer bar 22. The planar outer faces 132 of adjacent screen edge strips 24 abut each other to provide a tight joint between laterally adjacent screen panel assemblies 120. The screen panel assemblies 120 typically are supplied with the edge strips 24 in place. Installation is accomplished by simply placing the edge strips 24 in proper alignment above the cooperating retainer bars 22 and by exerting sufficient downward force to cause the ear lugs 104 to flex sufficiently so that the ears will pass up through the pocket central passages 166. The ear hooks 106 will then displace out into the pocket grooves 164. Since the retainer bars 22 have half ears 110 at their ends, the edge strips 24 have corresponding half pockets 170 at their ends 172.

[055] As depicted in the exploded view of Fig. 3, as seen in Fig. 9, and as also represented in Fig. 1, a plurality of dams 26 are each in cooperation with the screen edge strips 24. These dams 26 further secure the screen panel assemblies 120 in place and also act, in their more conventional manner, as flow turbulence increasing devices. As seen Fig. 11, each dam 26 is generally square in cross-section and is molded of polyurethane with a central, axially extending steel reinforcing bar 190. A resilient seal strip 192 is attached to a bottom surface 194 of the dam 26. As depicted in Fig. 3, each dam 26 has dam end pockets 196 at either end 198. These dam end pockets 196 are essentially the same, in overall configuration as the screen edge strip

pockets 160. A width of each dam 26 is essentially twice the width of a screen edge strip inner keyway 178. By referring to Fig. 9, it can be seen that a dam 26 will be positionable between the spaced screen edge strips of abutting ends of two longitudinally adjacent screen panel assemblies 120 and will act to tie the two screen panel assemblies 120 together. Each screen edge strip inner keyway 178 is essentially half of the width of a dam 26. Two inner keyways 178, on adjacent edge strip ends, form an inner keyway that will receive a dam end 198. The dam ends 198 are held in place in the inner keyways 178 by the cooperation of the edge strip end inverted half ears 180 with the dam end pockets 196. The inverted half ear hooks 182 will be received into the pockets 196 on the dam ends 198 in the same manner and with the same result as was discussed previously in connection with the retainer bar ears 100 and half ears 110 and their cooperating screen edge strip pockets 160 and half pockets 170.